

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

FRANCIS GECKER, solely as Chapter 7 Trustee for CYNTHIA COLLINS)
)
)
Plaintiff,)
)
	No. 16 CV 50153
v.)
)
	Magistrate Judge Jeffrey T. Gilbert
MENARD, INC. a/k/a MENARDS)
)
Defendant)
)

MEMORANDUM OPINION AND ORDER

This case is before the Court on Plaintiff's Motions to Strike Defendants' Experts Dr. Jacob L. Fisher [ECF No. 119] and Dr. William J. Hopkinson [ECF No. 120]. For the reasons discussed below, Plaintiff's Motions are denied.

BACKGROUND

Plaintiff alleges she was injured when a shopping cart made contact with her hip outside of a Menards home improvement store. Plaintiff and two other individuals were present at the time of the accident: Donnie Raulston, the store employee pushing the train of shopping carts, and Cornelia Smiley, a friend with whom Plaintiff was conversing. While the fact that a cart struck Plaintiff is not in dispute, the parties disagree as to the nature, cause, and extent of Plaintiff's injuries. In anticipation of trial, Defendants retained and disclosed two experts, Dr. Jacob L. Fisher and Dr. William J. Hopkinson. Dr. Fisher is a Ph.D. and biomechanical engineer who, using photogrammetry, recreated the scene of Plaintiff's accident in order to opine as to whether the mechanism of the accident is biomechanically consistent with Plaintiff's injuries. Dr. Hopkinson, M.D., is a board-certified orthopedic surgeon and Surgeon-in-Chief at Loyola University Medical

Center. Dr. Hopkinson conducted an independent medical examination of Plaintiff and opined as to the cause of Plaintiff's injuries.

INTRODUCTION

Federal Rule of Evidence 702 and the United States Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993), govern the admissibility of expert testimony in federal court. *Hall v. Flannery*, 840 F.3d 922, 926 (7th Cir. 2016). The familiar two-step *Daubert* framework allows admission of expert testimony that is "relevant to a fact in issue, is based on sufficient facts or data, and is the product of reliable scientific or other expert methods that are properly applied." *Stuhlmacher v. Home Depot U.S.A., Inc.*, 774 F.3d 405, 409 (7th Cir. 2014); see also, *Higgins v. Koch Dev. Corp.*, 794 F.3d 697, 704 (7th Cir. 2015) ("Rule 702 and Daubert require the district court to determine whether proposed expert testimony is both relevant and reliable."). The district court is the "gatekeeper" of expert testimony but must be mindful of the fact that "the key to the gate is not the ultimate correctness of the expert's conclusions," but "the soundness and care with which the expert arrived at her opinion." *Schultz v. Akzo Nobel Paints, LLC*, 721 F.3d 426, 431 (7th Cir. 2013).

A court will admit expert testimony only where the expert "(i) is qualified to offer opinion testimony under Rule 702, (ii) has employed a reliable methodology, (iii) proposes to offer opinions that follow rationally from the application of his knowledge, skill, experience, training, or education, and (iv) presents testimony on a matter that is relevant to the case at hand, and thus helpful to the trier of fact." *Mintel Int'l Grp., Ltd. v. Neergheen*, 636 F. Supp. 2d 677, 684–85 (N.D. Ill. 2009) (internal quotation marks omitted). The proponent of expert testimony bears the burden of proving the testimony is admissible. *Fail-Safe, L.L.C. v. A.O. Smith Corp.*, 744 F. Supp. 2d 870, 887 (E.D. Wis. 2010).

An expert may be qualified “by knowledge, skill, experience, training or education” and need not have any “particular credentials.” FED. R. EVID. 702; *Tuf Racing Prod., Inc. v. Am. Suzuki Motor Corp.*, 223 F.3d 585, 591 (7th Cir. 2000). The court must consider ““a proposed expert’s full range of practical experience as well as academic or technical training when determining whether that expert is qualified to render an opinion in a given area.”” *Trustees of Chicago Painters & Decorators Pension, Health & Welfare, & Deferred Sav. Plan Trust Funds v. Royal Int'l Drywall & Decorating, Inc.*, 493 F.3d 782, 788 (7th Cir. 2007) (quoting *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000)). When assessing whether an expert is qualified, the court is “not concerned with the witness’s general qualifications.” *Hall*, 840 F.3d at 926. Instead, the court examines whether the expert has the necessary qualifications to support “each of the conclusions he draws.” *Id.* (quoting *Gayton v. McCoy*, 593 F.3d 610, 617 (7th Cir. 2010)). In other words, the expert must be “qualified to offer opinions in the specific area of his or her proposed testimony.” *Bone Care Int'l LLC v. Pentech Pharm., Inc.*, 2010 WL 3928598, at *1 (N.D. Ill. 2010).

Courts have broad latitude when deciding whether an expert’s testimony is reliable. *Higgins*, 794 F.3d at 704. Reliability involves, “among other things: (1) whether the proffered theory can be and has been tested; (2) whether the theory has been subjected to peer review; (3) whether the theory has been evaluated in light of potential rates of error; and (4) whether the theory has been accepted in the relevant scientific community.” *Baugh v. Cuprum S.A. de C.V.*, 845 F.3d 838, 844 (7th Cir. 2017). To satisfy reliability, an expert may not “simply assert[s] a ‘bottom line’” or base her opinion on “subjective belief or speculation.” *Metavante Corp. v. Emigrant Sav. Bank*, 619 F.3d 748, 761 (7th Cir. 2010). Rather, an expert’s testimony must demonstrate “the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 153 (1999).

The relevance standard for expert testimony is similarly liberal. *Hale v. State Farm Mut. Auto. Ins. Co.*, 2016 WL 6947065, at *2 (S.D. Ill. 2016). Simply put, an expert's testimony must "assist[] the jury in determining any fact at issue in the case." *Stuhlmacher*, 774 F.3d at 409. If "the jury is able to evaluate the same evidence and is capable of drawing its own conclusions," then the expert's testimony is not helpful. *Sanders v. City of Chicago Heights*, 2016 WL 4398011, at *4 (N.D. Ill. 2016).

The court's application of these admissibility standards "is not intended to supplant the adversarial process." *Ortiz v. City of Chicago*, 656 F.3d 523, 536 (7th Cir. 2011). Even "shaky" testimony may satisfy Rule 702 and *Daubert*, *Bielskis v. Louisville Ladder, Inc.*, 663 F.3d 887, 894 (7th Cir. 2011), as it ultimately is for the jury to determine the accuracy of admissible expert evidence that has been "tested" through "vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof." *Lapsley v. Xtek, Inc.*, 689 F.3d 802, 805 (7th Cir. 2012) (quoting *Daubert*, 509 U.S. at 596).

I.
**MOTION TO STRIKE DR. JACOB L. FISHER'S REPORT AND
BAR DR. FISHER AS AN EXPERT WITNESS**

Defendant retained Dr. Fisher, a Ph.D. and biomechanical engineer, to recreate the scene of Plaintiff's accident using photogrammetry and to assess whether the mechanism of the cart accident was biomechanically consistent with Plaintiff's injuries. Dr. Fisher's qualifications as a biomechanical engineer are not in dispute. Dr. Fisher received a Ph.D. in bioengineering from the University of Pennsylvania and graduated *summa cum laude* with a Bachelor of Science degree from Pennsylvania State University. He has testified as an expert in both state and federal court, and his qualifications have previously passed muster under the *Daubert* framework within this circuit. *Hopey v. Spear*, 2016 WL 4443205 (C.D. Ill. 2016).

Here, Dr. Fisher arrived at his conclusions based on his review of depositions and statements of eyewitnesses, medical experts, and Plaintiff herself. Dr. Fisher also relied upon photographs of the incident location and three surveillance videos from the date of the incident. Additionally, Dr. Fisher reviewed two investigation reports, Plaintiff's medical records, and with respect to the shopping cart itself, examined photographs, a specification sheet, and two physical exemplar shopping carts. He also reviewed several medical studies related to hip injuries, focusing specifically on the mechanism and cause of labral tears.

More controversial from Plaintiff's perspective was Dr. Fisher's use of 3D scans taken by Dr. Fisher's colleagues, rather than by Dr. Fisher himself. As Dr. Fisher stated in his report and during his deposition, he relied on interior and exterior laser scans of the store entrance taken by other individuals at Exponent, the engineering and scientific consulting firm at which Dr. Fisher works. These scans ultimately aligned, or registered, to build a 3D point cloud of the location of Plaintiff's accident. Dr. Fisher himself examined and measured exemplar Menards shopping carts, which he subsequently used to create a 3D model of the cart train that made contact with Plaintiff. This model of the cart train was, in turn, placed within the 3D point cloud of the accident scene and oriented so that it matched the length and position of the cart train captured in store surveillance footage at various points in time. Using photogrammetry, Dr. Fisher matched the frame, position, orientation, and length of the cart train so as to re-create how, and to what ultimate effect, the cart train struck Plaintiff on the date of the incident.

Based on the above sources, and utilizing the 3D model he created, Dr. Fisher theorized that the dynamics of the incident occurred as follows. A cart train of approximately seven to nine carts made contact with Plaintiff, and when it did, it was traveling at a speed much lower than 3.5 feet per second. Dr. Fisher calculated this speed based, in part, on surveillance video that captured

Mr. Raulston pushing the cart train just before the accident. In estimating the cart train's speed at the time of the accident, Dr. Fisher found it particularly helpful that a frame of the surveillance video shortly before the accident showed Mr. Raulston remove his hands from the cart train and stop pushing. As a result, Dr. Fisher was able to see that the cart train stopped rolling within seconds of when Mr. Raulston stopped pushing, and particularly that Mr. Raulston did not exert any effort to bring the cart train to a quick stop.

At the moment of collision, Dr. Fisher concluded that the front of the lead cart made contact with Plaintiff's left hip, left wrist, and buttock and, based on the angle of impact, any motion of Plaintiff's body as a result of the contact would have been along the line of motion of the cart train. That is, the force of the interaction would have been directed across Plaintiff's body: from her left – the point of impact – to her right. Dr. Fisher further opined that because Plaintiff was not knocked down or displaced by the impact, both the speed and force of the cart contact was low.

Dr. Fisher next compared Plaintiff's kinematics during the accident to her documented injuries. According to Plaintiff's medical records, which Dr. Fisher reviewed in forming his opinion, Plaintiff suffered injuries to both her left and right hips. On the left, Plaintiff suffered superior and anterosuperior tears of the acetabular labrum and was also noted to have pincer and cam type lesions. On the right, Plaintiff was diagnosed with a tear of the anterosuperior labrum, a mild bony edema of the anterior medial acetabular wall, along with pincer and cam legions and notch osteophyte. Dr. Fisher opined that based on how the lead cart interacted with Plaintiff's left hip and buttock, the post-contact motions did not include a mechanism for twisting, turning, or extreme motions of hip hyperabduction or hyperextension. Put more simply, Dr. Fisher concluded that direct impact from a shopping cart would not have caused Plaintiff's body to rotate axially, as might occur if a pedestrian was sideswiped by a moving vehicle.

At most, according to Dr. Fisher, the direction and force with which the first cart struck Plaintiff would have caused a small amount of indirect loading onto Plaintiff's right hip as her body weight shifted from the left to right. This left-right shift in body weight would be comparable to the load Plaintiff would have experienced standing on one leg; or, compared another way, less than that experienced during normal walking when Plaintiff's body weight would be alternatively shifted between her legs.

After analyzing the accident data as discussed above, Dr. Fisher turned to Plaintiff's medical diagnoses and treatment. Dr. Benjamin Domb, M.D., one of Plaintiff's treating physicians, opined during his deposition that if Plaintiff were struck with "30 or so grocery carts," the resulting direct blow to Plaintiff's hip might twist or move her hip into an extreme of motion – that being either abduction, flexion, or extension – which in turn, could have caused Plaintiff's labral tears and other documented injuries. Dr. Fisher disagreed. Acknowledging that extreme versions of abduction, flexion, and extension may lead to labral tears, Dr. Fisher explained that, in his opinion, none of the extreme motions necessary to cause a labral tear were consistent with Plaintiff's kinematics in the accident. Rather, Dr. Fisher explained, the scientific literature showed that a labral tear was more consistent with something in the category of *hyperabduction*, *hyperextension*, and *hyperextension* with lateral motion; for example, moving Plaintiff's leg beyond her physiological range of motion either to the side, backward, or turning it outward. Furthermore, Dr. Fisher noted that Plaintiff was diagnosed with femoroacetabular impingement in both hips, a degenerative condition that is biomechanically consistent with Plaintiff's labral tears, widely associated with labral tears in the scientific literature Dr. Fisher reviewed, and, most relevant in the context of this case, a cause unrelated to Plaintiff's accident at Menards.

Plaintiff argues that Dr. Fisher, though a qualified biomechanical engineer, intends to offer expert testimony that does not meet the *Daubert* and Rule 702 standard in two ways. First, Plaintiff attacks not only the reliability of the field of photogrammetry itself, but also how Dr. Fisher applied photogrammetric principles to Plaintiff's accident and resulting injuries. Second, Plaintiff argues that because Dr. Fisher is a biomechanical engineer and not a medical doctor, he is not qualified to opine on the specific medical causation of Plaintiff's injuries. The Court addresses both prongs of Plaintiff's argument in turn.

A. Photogrammetry and Dr. Fisher's Application to Plaintiff's Accident

Plaintiff's first contention, that the field of photogrammetry is in and of itself unreliable, is without merit. As technology has become more advanced, so too have photogrammetric techniques and applications; however, photogrammetry itself has a long, recognized history of reliability in the scientific and judicial community. *See generally, United States v. Quinn*, 18 F.3d 1461, 1464-65 (9th Cir. 1994) (affirming district court's admission of an expert's opinion based on photogrammetry); *Chapman ex rel. Estate of Chapman v. Bernard's Inc.*, 167 F. Supp. 2d 406, 421 (D. Mass. 2001); *United States v. Williams*, 235 F. App'x 925 (3d Cir. 2007); *United States v. Kyler*, 429 F. App'x 828 (11th Cir. 2011); *Aviva Sports, Inc. v. Fingerhut Direct Mktg., Inc.*, 829 F. Supp. 2d 802 (D. Minn. 2011). Indeed, Plaintiff's characterization of photogrammetry as untested and unreliable is belied by Plaintiff's own citations dating back to 1959 defining photogrammetry as "the science of measurement from photographs." [ECF No. 119, p.10].

Given there is no dispute regarding Dr. Fisher's qualifications as a biomechanical engineer, under Rule 702 and *Daubert*, the Court must next ascertain whether Dr. Fisher's methodology was reliable. Here, under the broader umbrella of photogrammetry, Dr. Fisher utilized close-range photogrammetry and laser scan point clouds, which he used to create a 3-D accident model.

Specifically, Dr. Fisher relied upon a Faro Focus3D X330 laser scanner for measurements taken at the scene. Dr. Fisher then used all the available data, including witness statements and video surveillance, to draw conclusions as to the speed, direction, and force of various objects at the time of the cart's impact on Plaintiff. Dr. Fisher further reviewed Plaintiff's reported injuries, as well as peer-reviewed medical literature about the possible mechanism of those injuries, to form an opinion as to how Plaintiff's body moved at the time it was struck by the cart train and what injuries could or could not have resulted. Dr. Fisher's opinion was based on his training, experience and experience.

Reliability under *Daubert* involves, as discussed in more detail above, whether Dr. Fisher's theory can be and has been tested, whether it has been subjected to peer review or evaluated in light of potential error rate, and whether it has been accepted in the relevant scientific community.” *Baugh*, 845 F.3d at 844. Close-range photogrammetry is not, contrary to Plaintiff's assertions, a “new technique.” [ECF No. 119, p. 6]; see *Papadopoulos v. Fred Meyer Stores, Inc.*, 2006 WL 3404950, at *2 (W.D. Wash. 2006) (allowing expert testimony based on photogrammetry and noting that “close range photogrammetry has been subjected to peer review and publication” and “there is no dispute that close range photogrammetry enjoys general acceptance within the relevant scientific community.”). Nor is the use of laser scans, as evidenced by the peer-reviewed articles Dr. Fisher provided and prevailing case law. See, e.g., *Universal Underwriters Ins. Co. v. Dedicated Logistics, Inc.*, 2014 WL 7335668, at *13 (W.D. Pa. 2014) (finding an expert's use of “computerized depictions [that] are derived from his use of high definition laser scanning technology” which produces point cloud data part of a “sufficiently sound methodology” under *Daubert*).

When Dr. Fisher generated a laser scan point cloud using the Faro Focus3D X330 scanner, he applied standard, peer-reviewed techniques from the field of photogrammetry in forming his conclusions. Even if his use of a particular machine had not been peer reviewed, his technique of scanning an accident scene to determine measurements between objects of interest has been tested. *Amakua Dev. LLC v. Warner*, 2007 WL 2028186, at *8 (N.D. Ill. 2007) (“[A]lthough [the expert] may not have subjected his ‘theory’ or ‘technique’ to peer review and publication...this would not appear to be relevant, particularly if he is simply applying standard techniques from his field that do not warrant publication.”). Indeed, Dr. Fisher provided several peer-reviewed photogrammetric studies discussing laser scan point clouds and reverse projection techniques, both of which, as he explained during his deposition, he used in arriving at his opinions. [ECF No. 126-3, 126-4, 126-5, 126-6].

In the Court’s view, Dr. Fisher applied reliable science – that being close-range photogrammetry and reverse projection techniques based on measurements of the scene, exemplar carts, and laser scans – to the known facts using well-established methods. *United States v. Williams*, 235 F. App’x 925, 928-29 (3d Cir. 2007) (explaining that where the expert was qualified by his education and experience, “the reverse projection photogrammetry technique is sufficiently reliable to satisfy the admission requirements of Rule 702.”) Specifically, Dr. Fisher applied principles of mathematics, physics, and biomechanical engineering to the facts and data available from the accident scene. Dr. Fisher’s approach, “starting from the known facts about the accident and eliminating other possible explanations...until he was left with a hypothesis that was physically possible and that fit the evidence, is a good example of the scientific method.” *Lapsley*, 689 F.3d at 810.

Plaintiff next complains that Dr. Fisher neither took the scene measurements himself nor affirmatively demonstrated that they were accurate. Yet this argument misunderstands the fundamental purpose of Rule 702 and *Daubert*, which focuses on the reliability of the expert's *methodology*, not the reliability of the expert's data or underlying conclusion. Under *Daubert*, the accuracy of Dr. Fisher's underlying data goes to weight, not admissibility, of his testimony. *Matter of the Complaint of Ingram Barge Co.*, 2016 WL 3763450, at *8 (N.D. Ill. 2016) (holding that any limitations in the expert's calculations "do not amount to unreliability under *Daubert*" and that the objecting party "can challenge the accuracy of [the expert's] underlying data using vigorous cross-examination and presenting contrary evidence."). Therefore, the mere fact that Dr. Fisher did not investigate the scene himself, or take his own measurements of the accident scene, does not justify exclusion. "Photogrammetry is defined by taking measurements based on objects in photographs of an accident scene and does not require examination of the scene itself." *Jackson v. E-Z-GO Div. of Textron, Inc.*, 326 F. Supp. 3d 375, 436 (W.D. Ky. 2018) (citing *Cantu v. United States*, 2015 WL 4720580, at *7 (C.D. Cal. 2015)). Nor does Dr. Fisher's use of a colleague's measurements, notwithstanding whether Dr. Fisher subsequently analyzed and expanded upon them, affect the Court's *Daubert* analysis. *Jackson*, 326 F. Supp. 3d at 436.

Furthermore, given that Dr. Fisher has made available to Plaintiff all the raw data upon which he based his 3D model of the accident, Dr. Fisher's methodology can be tested and examined, as can the accuracy of his measurements. Dr. Fisher has provided his entire file to Plaintiff, including the laser scans themselves, the data used to match video camera angles and track the shopping carts, the measurements taken from the exemplar carts, the exemplar carts themselves, and all other measurements taken at the scene. With this data, another biomechanical

engineer, should Plaintiff have chosen to retain one, could have tested the reliability of Dr. Fisher's data and analysis. Or Plaintiff can do so at trial through cross-examination.

The fact that Dr. Fisher's specific application of photogrammetric principles cannot be evaluated in light of potential error rates is not fatal to the admissibility of Dr. Fisher's testimony. As Dr. Fisher explained during his deposition, error rates in the field of close-range photogrammetry depend on the quality of the available data, which is fact specific to each case. [ECF No. 119-3, p. 23]. Nor is he the first expert applying photogrammetry to have cited this limitation. Therefore, if the error rate for photogrammetry depends on the video or photo quality in each case, it is of no surprise that Dr. Fisher is unable to provide specific error rates for the interior and exterior Menards surveillance cameras as they existed in 2014. To the extent Dr. Fisher was able to account for error rates in his analysis of Plaintiff's specific case, he did so. [ECF No. 119-3, p. 38]. ("...if in our photo matching where we are off by an extra 11 and $\frac{3}{4}$ inches, which is the nesting distance of these carts, we will add another cart in there for good measure given that Donnie Raulston says he had seven to nine carts. I basically just increased my range to account for any inaccuracies there might be on the order of a few inches."). This, again, is something that goes to credibility but not threshold admissibility of Dr. Fisher's opinions.

However, because the resolution of the Menards surveillance video, and photographs therefrom, impact the potential error rate of Dr. Fisher's theory – which in turn, affects whether Dr. Fisher's "testimony is based on sufficient facts or data" under FED.R.EVID. 702(2) – both Plaintiff and Defendant will be given some leeway in their direct and cross examinations of Dr. Fisher. *See generally, Papadopoulos*, 2006 WL 3404950, at *3. As for Plaintiff, she will have the ability, through "vigorous cross-examination," to contest the factual foundation of Dr. Fisher's testimony. *Id.* Defendant will have similarly broad latitude concerning the underlying facts and

data Dr. Fisher used for his photogrammetric analysis and 3D re-creation of the Menards accident scene. If, at trial, the Court determines that any opinion testimony is not properly based on facts in the record, that issue can be addressed at that time.

In denying Plaintiff's motion, the Court notes that more than one case cited by Plaintiff stands for the opposite proposition than that advanced by Plaintiff. For example, Plaintiff argues that in *Vincente v. City of Rome*, 2005 WL 6032876 (N.D. Georgia 2005), the “use of photogrammetry was approved because the expert himself performed the underling [sic] measurements and testified about the procedure that was used.” [ECF No. 119, p. 12]. Plaintiff therefore concludes that unless the expert himself performed the measurements, his photogrammatically-based testimony will be inadmissible under *Daubert*. In fact, the *Vincente* court barred the expert’s testimony under *Daubert* because, despite the fact that he was qualified based on his “training and experience in the area of photogrammetry,” the expert’s analysis was not based on any measurements at the scene or quantifiable data regarding the position of various objects. *Vincente* at *10. Specifically, the court took issue with how the expert applied photogrammetry to the accident scene, noting that he merely “estimated the location of the seat and the incline of the seat from a photograph” and was simply “‘guessing’ as to the location and position of the car seat, the bullet trajectory, measurements of distances, and the position of Sergeant Smith.” *Id.* at *11. Neither the facts nor specific holding of *Vincente*, therefore, are applicable to the Court’s *Daubert* analysis of Dr. Fisher, except that, unlike the expert in *Vincente*, Dr. Fisher relied heavily on quantifiable data and measurements of the Menards accident scene in forming his conclusions.

Similarly, Plaintiff argues that the *Papadopoulos* court “found sufficient reliability of an expert’s floor tile elevation measurements in a slip and fall case, where his opinions and

conclusions relied on photogrammetry – because the expert’s use of photogrammetry ‘can be and ha[s] been tested,’ because expert’s prior applications of photogrammetry proved his accuracy of analysis, because procedure used to determine height of floor tile was reliably replicated to re-do testing, and because there was no dispute that ‘close range photogrammetry has been subjected to peer review and publication.’” [ECF No. 119, p. 11]. In fact, in *Papadopoulos*, the court determined the expert testimony was reliable not because the expert’s *use* of photogrammetry can and has been tested, but because the “photogrammetric *measurements* can be and have been tested.” *Papadopoulos* at *2 (emphasis added). The procedure to determine height of the floor tile was not *actually* reliably replicated, as Plaintiff claimed was outcome determinative; rather, the court considered it relevant that the procedure – the expert’s selection of ridge points – “*could* be reliably replicated” with the underlying data. *Id.* at *2 (emphasis added). Finally, nowhere in its opinion did the court review the expert’s “prior applications of photogrammetry” and opine as to whether those had been subsequently proven reliable. To the extent the *Papadopoulos* court found that close-range photogrammetry, the methodology employed by Dr. Fisher, has been subject to peer review and publication and therefore passes *Daubert* muster, this advances Defendant’s arguments, not Plaintiff’s.

In sum, the methodology used by Dr. Fisher in this case appears to be sound. While the Court is mindful of the fact that reliable methods do not always produce reliable conclusions, *Daubert* only requires courts to scrutinize the former. The latter is a question for the jury. The Court can find an expert opinion reliable if it is based on “good grounds” or methods and procedures of science rather than on subjective belief or unsupported speculation. *Daubert*, 509 U.S. at 590. Because Dr. Fisher’s theory can be tested, the science of close-range photogrammetry

has been subject to peer review and is accepted in the relevant scientific community, Dr. Fisher's methodology and testimony meet the standard for admissibility under *Daubert* and Rule 702.

B. Dr. Fisher's Testimony Regarding Specific Causation

Alternatively, Plaintiff asks the Court to preclude Dr. Fisher's testimony on "specific medical causation of Plaintiff's injuries." [ECF No. 119, p. 13]. According to Plaintiff, Dr. Fisher's proposed causation testimony is beyond the scope of a biomechanical engineer and more properly within the purview of a medical doctor.

Plaintiff is correct that some courts have found medical causation testimony from qualified biomechanical engineers inadmissible under *Daubert*. See, e.g., *Hopey*, 2016 WL 4443205; *Kelham v. CSX Transp., Inc.*, 2015 WL 4426027 (N.D. Ind. 2015); *Braxton v. DKMZ Trucking, Inc.*, 2015 WL 630297 (E.D. Mo. 2015); *Bowers v. Norfolk S. Corp.*, 537 F. Supp. 2d 1343, 1378 (M.D. Ga. 2007); *Smelser v. Norfolk S. Ry.*, 105 F.3d 299 (6th Cir. 1997). But many courts also have allowed this testimony, particularly within this district. *Pike v. Premier Transportation & Warehousing, Inc.*, 2016 WL 6599940 (N.D. Ill. 2016); *McKeon v. City of Morris*, 2016 WL 5373068 (N.D. Ill. 2016); *Finn v. BNSF Railway Co.*, 2013 WL 462057 (D. Wyo. 2013); *Phillips v. Raymond Corp.*, 364 F. Supp. 2d 730, 741 (N.D. Ill. 2005). The opinions that have found this testimony admissible are also more recent, suggesting that techniques utilized by biomechanical engineers to opine as to the mechanism of injuries – including photogrammetry – have become increasingly more reliable and acceptable under the *Daubert* framework.

The Court also is persuaded that the expert testimony of a biomechanical engineer regarding the forces and kinematic impact of an accident serves a different purpose than expert testimony typically offered by a medical doctor. In fact, it is because Dr. Fisher is a biomechanical engineer, not a medical doctor, that he is qualified to testify as to the force on Plaintiff's body

during the accident, the type of injury it could cause, and whether Plaintiff's injuries were consistent with that analysis. Dr. Fisher is not offering a medical diagnosis or rendering a medical opinion. His proposed testimony is within his particular field of expertise and is not medical testimony. "The traditional role of the physician is the diagnosis (identification) of injuries and their treatment, not necessarily a detailed assessment of the physical forces and motions that created injuries during a specific event." Channing R. Robertson, John E. Moalli & David L. Black, *Reference Guide on Engineering*, in Reference Manual on Scientific Evidence, at 901 (Federal Judicial Center, 3d ed. 2011). As a biomechanical engineer, Dr. Fisher is qualified to opine on the latter, not the former. *See, e.g., McKeon*, 2016 WL 5373068 at *6. Specifically, Dr. Fisher has extensive knowledge about how the human body moves when forces are applied to it and can offer valuable insight to the jury as to the forces likely exerted upon, and by, Plaintiff at the time of the incident. *See, e.g., Ingraham v. KIA Motors Am., Inc.*, 2007 WL 2028940, at *5 n. 12 (W.D. Okla. 2007) ("Biomechanical experts have extensive knowledge about how human bodies move when forces are applied to them and thus may provide testimony as to how vehicle occupants move and are impacted in vehicular accidents.") (internal quotations omitted). He is therefore qualified under *Daubert* to testify regarding Plaintiff's injury mechanisms. *McKeon*, 2016 WL 5373068 at *6.

Dr. Fisher has proffered that he does not intend to diagnose Plaintiff with a medical condition, opine as to whether the medical treatment she received was appropriate, or speculate as to any future medical treatment she may require. To the extent Plaintiff has concerns that Dr. Fisher's opinions may stray from the parameters of his own report or the Court's opinion, Plaintiff may address these concerns at the pretrial conference or with a timely objection at trial. As to the ultimate correctness of Dr. Fisher's conclusions, this too is a matter for cross-examination at trial. *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000).

II.

**MOTION TO STRIKE DR. WILLIAM J. HOPKINSON'S REPORT AND
BAR DR. HOPKINSON AS AN EXPERT WITNESS**

Defendant also retained Dr. Hopkinson, a board-certified orthopedic surgeon, as an expert witness in this case. Plaintiff argues that Dr. Hopkinson, though a qualified orthopedic surgeon, nevertheless intends to testify beyond the scope of his expertise. Specifically, Plaintiff argues that his opinions on the cause of Plaintiff's injuries are "speculative, unreliable, and are not based on any measurements, data, or any evidence found in the record in this case." [ECF 120, p. 2]. In essence, Plaintiff's quarrel is not with Dr. Hopkinson's qualifications or area of expertise, but the facts upon which Dr. Hopkinson's opinion is based and whether his experience as an orthopedic surgeon, as opposed to data from scientific testing, can form the basis of an expert opinion. Because Dr. Hopkinson is a qualified orthopedic surgeon, and his opinions are both relevant and reliable, the Court finds his testimony passes *Daubert* muster for the reasons explained below.

As an initial matter, Dr. Hopkinson's qualifications, although unchallenged in the instant Motion, influence the Court's *Daubert* analysis and therefore bear summarizing. Dr. Hopkinson is a board-certified orthopedic surgeon who specializes in hip and knee injuries. He has a Bachelor of Science in engineering from the United States Military Academy in West Point, New York, and received his medical degree from the Loyola University Stritch School of Medicine in Chicago. He currently is the Surgeon-in-Chief at the Loyola University Medical Center and has been an orthopedic surgeon for over thirty years. He is certainly qualified, based on his professional experience and academic training, to render an opinion in the field of orthopedics. The Court also finds that he is particularly qualified, as demonstrated by his lengthy curriculum vitae and publication history, in diagnosing and treating hip and knee injuries.

Dr. Hopkinson performed an independent medical examination of Plaintiff on August 18, 2017, which included a review of Plaintiff's medical records, an in-person evaluation of Plaintiff's condition, and an opinion as whether her medical care was appropriate. Dr. Hopkinson subsequently reviewed three MRIs and x-rays from Hinsdale Orthopedics, the deposition testimony of Plaintiff, Ms. Smiley, Mr. Raulston, and Dr. Domb, M.D., and video footage from Menards shortly before the incident. Based on all the evidence available to him, as well as his own medical examination and prior review of Plaintiff's medical records, Dr. Hopkinson followed up with an opinion on January 3, 2018 as to what caused Plaintiff's injuries.

Based on his education, training, and experience in the field of orthopedic surgery, Dr. Hopkinson opined that the trauma Plaintiff sustained was not of enough force, or at an angle, to have induced tears to the anterior or superior labrum or other ligaments in either hip. He concluded that the direction of the force impacting Plaintiff's hip was directed to the lateral aspect of Plaintiff's left hip, which would not have had any significant impact to the superior or anterior labrum on either of Plaintiff's hips. Rather, the direction would force Plaintiff's left femoral head into her acetabular socket. Therefore, Dr. Hopkinson opined that the bony edema evidenced on the MRI of Plaintiff's right hip could not have been caused by the car accident. Rather, it was likely caused by some other right-sided trauma within a year of the MRI film, or by simple degeneration of Plaintiff's hip, compounded by Plaintiff's congenital defects. Dr. Hopkinson concluded that the bilateral labrum tears in Plaintiff's hips also likely were a result of a combination of chronic degeneration and Plaintiff's congenital defects. [ECF No. 127-1, p. 5].

Under *Daubert* and its progeny, Dr. Hopkinson's testimony is sufficiently reliable to justify its admission into evidence. Directly contrary to Plaintiff's argument, “[a]n expert's testimony is not unreliable simply because it is founded on his experience rather than on data; indeed, Rule 702

allows a witness to be ‘qualified as an expert by knowledge, skill, *experience*, training, or education.’” *Metavante Corp. v. Emigrant Sav. Bank*, 619 F.3d 748, 761 (7th Cir. 2010) (citing FED.R.EVID. 702 (emphasis added); *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000)). Consistent with Rule 702, Dr. Hopkinson formed his expert opinion based on over three decades of experience diagnosing and treating hip injuries as an orthopedic surgeon. The mere fact that Dr. Hopkinson did not conduct tests to determine the likely mechanism of Plaintiff’s injury or present statistical data does not render his opinion inadmissible. *Daubert* allows Dr. Hopkinson to rely on over three decades of experience diagnosing hip injuries – while being contemporaneously informed by patient histories of how those injuries occurred – to determine whether it is likely that Plaintiff’s injuries occurred without rotational force. Dr. Hopkinson’s application of this knowledge to his analysis of Plaintiff’s medical records and witness depositions is sound. *See, e.g., Ortiz*, 656 F.3d at 537.

Dr. Hopkinson also explained “why the application of his prior experience to the facts at hand compel his final conclusions.” *Crawford Supply Grp., Inc. v. Bank of Am., N.A.*, 2011 WL 4840965, at *3 (N.D. Ill. 2011). Dr. Hopkinson noted that in his experience, individuals that suffer traumatic labral tears – which he has seen occur from falling down the stairs, being in a car accident, or sports-related incidents – usually occur with a rotational or twisting force, which was not present in Plaintiff’s case. A non-traumatic labral tear, again in Dr. Hopkinson’s experience, occurs as a result of degeneration. [ECF No. 120-2, p. 23]. Though the entirety of Dr. Hopkinson’s deposition testimony does not bear repeating, Dr. Hopkinson also explained that his opinion, in part, could be demonstrated to the jury with the use of a model of the anatomy of the hip. The anatomy of the hip itself, according to Dr. Hopkinson, shows how an individual can tear the labrum by rotating the hip, but not by directly pushing the ball into the hip socket. Therefore, both through

his report and deposition testimony, Dr. Hopkinson has explained why his experience supports his final conclusions and the Court is satisfied he can provide the testimony he intends to offer.

Finally, Plaintiff complains that Dr. Hopkinson did not review all the facts in Plaintiff's case so his opinion is too speculative to present to the jury. Though Plaintiff does not point the Court to any additional facts Dr. Hopkinson should have reviewed, that issue is moot. Neither *Daubert* nor the Federal Rules of Evidence requires Dr. Hopkinson to review each and every fact available in Plaintiff's case: "only a 'sufficient' amount is required." *Hoskins v. Gunn Trucking*, 2010 WL 4000123 (N.D. Ind. 2010) (citing FED.R.EVID. 702(1)). Here, Dr. Hopkinson reviewed the bulk of the evidence that will be presented to the jury: Plaintiff's medical records, three MRIs and x-rays from Hinsdale Orthopedics, the deposition testimony of Plaintiff, Ms. Smiley, Mr. Raulston, and Dr. Domb, M.D., and video footage from Menards. Dr. Hopkinson also had the benefit of an in-person medical examination of Plaintiff. Any shortcomings that Plaintiff perceives in the records reviewed by Dr. Hopkinson, or the facts upon which he relied, such as the force of the cart's impact, may be explored on cross-examination. *Walker v. Soo Line R.R. Co.*, 208 F.3d 581, 589 (7th Cir. 2000) (holding that an expert's reliance on faulty information is a matter to be explored on cross-examination; it does not go to admissibility).

Plaintiff essentially asks the Court, under the guise of a *Daubert* motion, to determine whether Dr. Hopkinson misinterpreted the facts available to him in concluding that the force and direction of the cart accident likely did not cause Plaintiff's injuries. Yet this improperly asks the Court to "take the place of the jury to decide ultimate issues of credibility and accuracy." *Lapsley*, 689 F.3d at 805 (citing *Daubert*, 509 U.S. at 596). "The soundness of the factual underpinnings of the expert's analysis and the correctness of the expert's conclusions based on that analysis are factual matters to be determined by the trier of fact, or, where appropriate, on summary judgment."

Smith, 215 F.3d at 718; *see also, Stollings v. Ryobi Techs., Inc.*, 725 F.3d 753, 766 (7th Cir. 2013) (“An expert may provide expert testimony based on a valid and properly applied methodology and still offer a conclusion that is subject to doubt.”). The jury, not this Court, must determine the ultimate correctness of the Dr. Hopkinson’s expert conclusions. *Manpower, Inc. v. Ins. Co. of Pennsylvania*, 732 F.3d 796, 806 (7th Cir. 2013) (“The district court usurps the role of the jury, and therefore abuses its discretion, if it unduly scrutinizes the quality of the expert’s data and conclusions rather than the reliability of the methodology the expert employed.”).

In sum, the Court finds Dr. Hopkinson is qualified to offer opinion testimony under Rule 702 and has employed a reliable methodology by reviewing Plaintiff’s medical history and all available witness testimony to arrive at a conclusion based on his medical training and decades of medical experience. Dr. Hopkinson intends to offer opinions that follow rationally from the application of his knowledge, skill, experience, training, or education as an orthopedic surgeon, and present testimony on a matter that is relevant to the case at hand, and thus helpful to the trier of fact. His testimony is relevant, as it goes to the heart of this litigation. Therefore, Dr. Hopkinson may testify as to the likely causation of Plaintiff’s injuries.

CONCLUSION

For the reasons discussed above, Plaintiff’s Motions to Strike Dr. Fisher and Dr Hopkinson are hereby denied.

It is so ordered.



Jeffrey T. Gilbert
United States Magistrate Judge

Dated: August 12, 2019